

## Using Evaluation Results to Communicate Your Value Part 3: Outcomes Measurement

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## 4 Part Series: Using Evaluation Results to Communicate Your Value

- Part 1. What to Measure and Why - Jun 4th
- Part 2. Needs Assessment - Jun 11th
- Part 3. Outcomes Measurement - Sept 17th
- Part 4. Culture of Assessment and Communicating Your Value - Sept 24th

Dudden, RF. **Using Benchmarking, Needs Assessment, Quality Improvement, Outcome Measurement, and Library Standards: A How-To-Do-It Manual.** New York: Neal Sculman, 2007.



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## Outline - Part 3

- Key Benefits:
  - Learn the meaning of outcomes measurement.
  - Find out where on the Web to get more information.
  - Learn how to use the Logic Model to plan a program with outcomes.
  - Be aware of the outcomes studies of others and how to use them with your own data.
- Key Topics:
  - Outcomes measurement in today's library environment.
  - Use of the Logic Model to plan for outcomes measurement.
  - Combining the results of local and national studies.



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## Response to Library Cuts

- National Library of Medicine Publications Grant, now called **NLM Grants for Scholarly Works in Biomedicine and Health**
- (#5-G13LM008520) Oct 2004 to Sept 2006
- Purpose: a book-length manuscript (or other scholarly work) of value to U.S. health professionals.
- A good score - hope that other people thought the book would be of use to librarians in small library settings.



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## Response to Library Cuts

### Table of Contents

- Part I: Evaluating Library Quality and Performance
1. Why Evaluate?
  2. The Effective Library
  3. Library Measures

New York: Neal Schuman, July 2007.



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## Response to Library Cuts

### Part II: Working with Evaluation Methods

4. Method 1: Needs Assessment  
Workbook for Needs Assessment
5. Method 2: Quality Improvement  
Workbook for FOCUS-PDCA
6. Method 3: Benchmarking  
Workbook for Performance Benchmarking
7. Method 4: Library Performance Standards  
Workbook for Library Performance Standards
- Workbook for Accreditation Standards



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## Response to Library Cuts

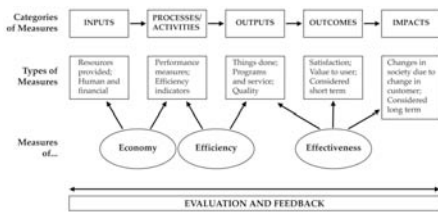
- 8. Method 5: Outcomes Measurement
  - Workbook for Describing Published Studies of Outcomes Measurement
  - Workbook for Cost Outcomes
  - Workbook for the Logic Model
- 9. Other Systems for Quality Improvement and Evaluation
- Part III: Tools for Doing Evaluations
- 10. Data Collection and Analysis Methods
- 11. Skills for Communicating in Evaluation Projects
- 12. Tools for Improvement and Evaluation
- Appendix A: Glossary of Terms
- Appendix B (on CD-ROM):



## What do we measure? (Part 1)

- Needs
- Inputs
- Quality Processes
- Outputs
- Quality Service
- Outcomes
- Impacts

## Linear Arrangement of Types of Measures



Dudden, RF. Using Benchmarking, Needs Assessment, Quality Improvement, Outcome Measurement, and Library Standards: A How-To-Do-It Manual. New York: Neal Sculman, 2007.

## Assessment - Evaluations

- Definitions:
  - "Assessment is the gathering of meaningful or purposeful data that will provide information that informs, improves, or confirms."
  - "Evaluation is assigning merit, value or worth to the findings."
    - Lee-Thomas G, Robson J. The questions of academic library assessment. Indiana Libr. 2004;23(1):6-10.

## Needs Assessment (Part 2)

- **Definition:**
- A systematic process for determining discrepancies between optimal and actual performance of a service
- by reviewing the service needs of customers and stakeholders and
- then selecting interventions that allow the service to meet those needs in the fastest, most cost effective manner.

## Value and Benefit, Outcome and Impact

- **Value**
  - The importance or preciousness of something, the perception of actual or potential benefit.
- **Benefit**
  - The helpful or useful effect that something has.

## Value and Benefit, Outcome and Impact



- **Outcome**

- The consequence, visible or practical result or effect of an event or activity.

- **Impact**

- The effect or influence of one person, thing or action on another.

## Value and Benefit, Outcome and Impact



- **Library Outcomes**

- The eventual result of using library services, the influence the use had and its significance to the user.

Poll, Roswitha. Measuring impact and outcome of libraries. *Perform Measur Metrics*. 2003;4(1):2-12.

## Measure Outcomes



- Started in 1993 with the Government Performance and Results Act (GPRA)
- The GPRA required that most federal agencies develop objective, quantifiable and measurable goals and report how well those goals were achieved.
- The influence of the law spread to local governments and philanthropic organizations.
- If a program says it will **change the lives** of a certain population group, how does it prove it actually did?

## Measure Outcomes



- **United Way of America:**

- *Measuring Program Outcomes: A Practical Approach*, 1996.
- The Outcome Measurement Resource Network

- **W.K. Kellogg Foundation:**

- W.K. Kellogg Foundation Evaluation Handbook, 1998;
- Logic Model Development Guide. 2004.
- The Evaluation Toolkit

## Measure Outcomes



- A fiscally conservative trend
- “Prove” that the dollars spent helping people really do
- Trickle down effect to all types of libraries, as well as museums, colleges, and universities

## Outcomes - Public Libraries



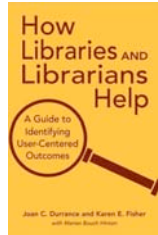
The Institute for Museum and Library Services (IMLS) describes an outcome as

- a benefit to people through achievements or changes in skill, knowledge, attitude, behavior, condition, or life status.



## Outcomes - Public Libraries

- *How libraries and librarians help: A Guide to Identifying User-Centered Outcomes*, by Durrance and Fisher
- “Political pressures are very strong for public libraries to prove their worth in competition for tax dollars.”
  - Information School, University of Washington
  - School of Information, University of Michigan



## Outcomes - Public Libraries



- Outcomes Tool Kit 2.0 provides “guidance for going beyond reporting outputs and will help you to discover outcomes, or indicators of impact, of your programs that can be shared with others.”

University of Washington Information School  
<http://ibec.ischool.washington.edu/toolkit.php>



## Outcomes - Public Libraries

- Shaping Outcomes
- An outcome is a change in a target audience's skills, attitudes, knowledge, behaviors, status, or life condition brought about by experiencing a program.



Indiana University Purdue University Indianapolis  
<http://www.shapingoutcomes.org/course/index.htm>



## Outcomes - Ice Cream Socials

- Example: A local Denver dairy is awarding cash grants or ice cream socials to school libraries.
- As part of the application, the library needs to:
  - Describe who will benefit from the grant.
  - What measure will you use to determine the success of the project?

## Outcomes - Academic Libraries

- Challenges
  - Is the academic performance of students improved through their contact with the library?
  - By using the library, do students improve their chances of having a successful career?
  - Are undergraduates who used the library more likely to succeed in graduate school?
  - Are students who use the library more likely to lead fuller and more satisfying lives?

ACRL Task Force on Academic Library Outcomes Assessment  
<http://www.ala.org/ala/acrl/acrlpubs/whitepapers/taskforceacademic.cfm>

## Outcomes - Health Libraries

- Impact federal health library outreach programs
- Measuring the Difference : Guide to Planning and Evaluating Health Information Outreach. 2000; three supplemental publications, 2006.
- National Network of Libraries of Medicine Pacific Northwest Region - NN/LM-PNR

Outreach Evaluation Resource Center (OERC)\*  
<http://nnlm.gov/evaluation/>

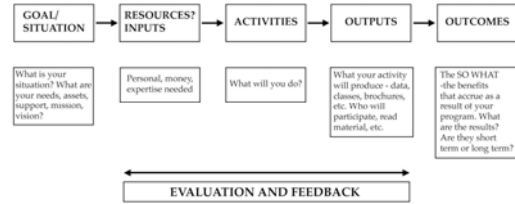
\*Some of the ideas and tables for this presentation are taken from these excellent NN/LM resources.

## Logic Model - Definition

- “Logic models establish the relationship between an intervention and desired results by describing the theory and assumptions underlying the provision of services.
- They may also guide the selection of data for monitoring and improving services.
- A basic logic model identifies the activities; resources or inputs; and output, outcome, and impact measures associated with an intervention or program.”

Eileen Abels, et al. Identifying and communicating the contributions of library and information services in hospitals and academic health sciences centers. J Med Libr Assoc. 2004;92(1):46-55.

## Basic Logic Model



Dudden, RF. Using Benchmarking, Needs Assessment, Quality Improvement, Outcome Measurement, and Library Standards: A How-To-Do-It Manual. New York: Neal Sculman, 2007.

## Parts for using the Logic Model for planning and evaluation

- Determine the problem to be solved
- Start writing your Logic Model
- Planning the evaluation

Web Resources for learning more about the Logic Model:

- University of Wisconsin-Extension. *Enhancing Program Performance with Logic Models*. University of Wisconsin. Last Updated: 2002; Accessed: 1 August 2008. <http://www.uwex.edu/ces/im/course/>
- Resources at the NN/LM Outreach Evaluation Resource Center (OERC)\* <http://nnlm.gov/evaluation/>

## A. Determine the problem to be solved

- Start small with one program in your library that has an issue.
- Do a logic model on that program.
- Do another program.
- Soon you will have a plan for your whole library with each program analyzed in the same way.

## Step 1: Determine the purpose of your logic model

- Who is asking you to do the model?
- Why are they asking you to do it? Why is it required?
- Is evaluation of the program a major requirement?
- Write a succinct statement of purpose to discuss with your team

## Step 2: Involve others

- Gather a team.

Member Name	Title	Extension	Reason to be on team /Skills

### Step 3: Decide on the scope of the logic model

- How will the model be used and by whom?
- With your team, discuss and write down the scope of the logic model.
- Start small. One service at a time.

### Step 4: Understand the problem, the environment surrounding it, and set priorities

- With your team, develop a SWOT analysis. Use brainstorming techniques, if appropriate.

Strengths: (internal; positive statements about your library)	Weaknesses: (internal; what is lacking in your library)
Opportunities: (external; services you are not doing perhaps discovered in a needs assessment)	Threats: (external; adverse factors in the environment)

### Step 4: Understand the problem, the environment surrounding it, and set priorities

- Outline the problem statement using these five parts.
  - Describe the problem.
  - Ask why it is a problem and what causes it.
  - State whose problem it is.
  - Mention who has a stake in the problem or who cares about it.
  - Mention existing research or studies you have found that describe or address the problem.

### Step 4: Understand the problem, the environment surrounding it, and set priorities

- Write the problem statement keeping it short (400-500 words or less) and succinct and avoid using jargon.
- Ask others outside the team to review it for clarity.
- Set priorities.
- Does solving this problem align with your library and/or institutional mission and values?
- Do you have the expertise and/or resources to work on this problem?

### Problem Statement

- Library customers have a hard time attending library education courses due to the fixed schedule. Library courses may not be specific to their needs. The institution has a fixed computer classroom which is not very near work sites. Since the scheduled classes are open to all levels of customers, it is hard to customize them.
- It is a problem for the library system that not enough customers know how to use the resources available. It is a problem for the customers that they don't know what resources are available that might help them in their job.
- The customers have a stake in the problem because when doing scientific study, they need to use the library resources. If they don't know how the new electronic products work and what is available, their job productivity may suffer. The library has an obligation to educate the user.

### Step 5: Find out what else has been done to solve this problem by doing a literature search

- Have team members do a literature search and review the literature for possible solutions to the problem defined in the situation statement.
- Report back on what has been found.

## B. Start writing your Logic Model

Resources	Activity	Outputs	Outcomes
What will you need to carry out your activities?	What will you do?	How many of what will your activities produce?	So what – the difference your program makes, the benefits that accrue because of your program

## Step 6: Write your outcomes. “Plan backwards, implement forwards.”

Short-term Outcomes: Changes in Learning	Medium-term Outcomes: Changes in Action	Long-term Outcomes: Changes in Conditions
How would individuals who took advantage of your program have benefited in relation to achievements or changes in skill, knowledge, attitude, behavior, condition, or life status?	What would be a change in the actions of the system that would be caused by people participating in your program?	What would be the biggest impacts on the conditions of society or your institution of the changes in the systems that might have been caused by changes in individuals who took advantage of your program?

## Step 7: Work Back Along the Logic Model

- Add three columns to the left of the table you have developed above for your outcomes.
- Fill in the sections on outputs, activities and resources.

## Step 6&7: Write your outcomes. “Plan backwards, implement forwards.”

Goal: Cost effectively acquire and manage information resources

Resources	Activity	Outputs	Outcomes
Personnel, money, expertise needed	What you will do	What your activity will produce – data, classes, brochures, etc	The <b>SO WHAT</b> – the benefits that accrue as a result of your program
Knowledgeable Librarian	Select Books and Negotiate discounts	Selection list and optimal pricing	<b>Reduce</b> hospital costs by buying shared resources.
Budget	Purchase Books	Enter PO and ensure access is active	<b>Increase value</b> of hospital expenditures by ensuring that ordered materials are received
Record keeping system and trained staff	Process Books	Catalog records	Users <b>know</b> that hospital owns title

## C. Planning the evaluation

Step 7	Step 8	Step 11	Step 11	Step 12	Step 12	Step 14
Activity	Affects Whom	Indicator	Target	Data Source or Methodology	Data Collection Frequency	Data Analysis Methods
What is done to achieve outcome	People involved in or influenced by activity	Measurable result of activity	Specific desired result	Origin of indicator measurements	Date, time and intervals	Organize, examine, learn from the data

## Step 8: Focus the evaluation

- For what purpose will the evaluation be used?
- Keep the evaluation straightforward and simple:
  - What do you need to know and who needs to know it.
- Determine who the target of the evaluation is.
- Are you going to evaluate the whole program or just part of it?

## Step 9: Determine the resources you have or need

- List the resources you need to carry out the evaluation project.
- With the team, create a Responsibility Chart listing all the tasks that need to be done and who will be doing them. Which staff members have the time and expertise?
- Using the task list, create a timeline using a Gantt chart.
- With some idea of how much time it will take, calculate a budget to see what the expenses will be.

## Step 10: Develop your question(s):

- What do you want to know?
- What do you see in the model that will help you shape your question?
- Prioritize your questions.
- Don't try to do too much.
- Remember the focus. Who wants to know what?

## Step 11: Decide on your indicators

- Develop your indicators using the Indicator Review Worksheet and other resources available online in the University of Wisconsin-Extension Web-based course. (<http://www.uwex.edu/ces/lmcourse/>)
- Questions to ask while filling out the form:
  - What will indicate that the outcome (or process) has been achieved?
  - What measurement means the outcome happened?

## Step 11: Decide on your indicators

- Rate each indicator with these qualities on the form.
  - Specific?
  - Observable?
  - Measurable?
  - Useful?
  - Practical?
  - Adequate?
  - Culturally appropriate?

## Step 12: Determine which data collection method best suits the question and the indicators

- Before you start filling out the Evaluation Plan Worksheet, evaluate the various methodologies to see what are the strengths and weaknesses of different data collection methods in your context.
- Use the Data Collection Methodologies Review from the NN/LM-OERC as a reference to identify issues, strengths and weakness in choosing a methodology.

Data Collection Methods (36kb, rev: Mar 1, 2007) PDF - accessed at:  
[http://nnlm.gov/evaluation/workshops/measuring\\_your\\_impact/index.html](http://nnlm.gov/evaluation/workshops/measuring_your_impact/index.html)

## Step 13: Analyze the information

- Analyze the results and make determinations and statements about the results.
- Using charts and graphs, you and your team can look at the quantitative data collected and see what the results are.
- If you also did qualitative evaluation you will have stories to accompany your anecdotes.
- Discuss the data as a group and come to a consensus about what it means.

## Step 14: Communicate your findings

- With the team, write reports to various stakeholders using the communication techniques and tools.
- Make a communication plan.
- How will you announce your results to your users and other stakeholders?
- Who will compile the project reports?
- Who will write the executive summary(s)?
- How will you distribute the final information?

## Making It Count @ your library®

- Use Statistics to Tell Your Story
- Numbers You Can Use
- Making It Count @ your library® PowerPoint Presentation
- <http://www.ala.org/ala/pla/plaissues/smartercardcampaign/toolkit/statistics.cfm>
  - (ALA – Public Library Association)

## Reporting method from Making It Count

In a report or presentation, state:

- The Facts
- The Sources
- Your Story
  - The following is an example from ALA/PLA website.

## Reporting method from Making It Count

- Public libraries are gateways to the World Wide Web.
- The Facts:
  - New computers increase user visits, and many new to libraries.
  - Includes home schoolers, travelers, and others who depend on library computers.
  - 75% of patrons "ask a librarian" when they need help with library computers.
  - 77% have websites.
  - 72% of websites provide access to Web resources.
  - 70% of libraries provide online catalog access.
  - 63% provide access to licensed databases.
  - 21% offer interactive reference services.

## Reporting method from Making It Count

- Public libraries are gateways to the World Wide Web.
- The Sources:
  - The Gates Legacy: What's changed and what's next as librarians work to sustain public access to computers, Library Journal, 2003 Available at: <http://www.libraryjournal.com> (search terms: gates legacy)
  - Articles from OCLC Office of Research in 2003 issues of Public Libraries and Library Hi Tech (storefronts, strip-malls, malls analogy) Available at: <http://www.oclc.org/research>

## Reporting method from Making It Count

- Public libraries are gateways to the World Wide Web.
- Your Story:
  - Report website usage statistics for library catalog, licensed databases, etc.
  - Publicize profiles of patrons who use online services and how they make a difference.
  - Publicize stories of librarians helping patrons with technology.

## MLA-CCML - Vital Pathways

- The MLA Vital Pathways Task Force
- To help hospital librarians communicate with other leaders in their institutions about the value of librarians and library services.
- **Myths and Truths About Library Services**
  - Developed by the Colorado Council of Medical Librarians (CCML) Advocacy Committee and MLA, 2006.
  - <http://www.mlanet.org/resources/vital/index.html>

## Presenting Value

- Present the facts or truths
- Present the sources
- Present your story

## Myth: Quality of Patient Care is Unaffected by Library Services

- **TRUTH (Fact):**
- Research has shown that libraries improve patient care
  - Weightman and Williamson state:
  - “Research studies suggest professionally led library services have an impact on health outcomes for patients and may lead to time savings for health-care professionals.”

## Source:

Weightman AL, Williamson J. The value and impact of information provided through library services for patient care: a systematic review. *Health Infor Libr J* 2005;22(1):4-25.

## Your Library Story:

- Physicians use the Tucker Library to make patient care decisions:
  - Quote from a recent survey:
  - “The library is critical to my role as a clinical radiologist. Twice within the past month, I have used it to search for a specific clinical diagnosis, resulting in a change of management for the patient, and education for clinician colleagues.”

## How do get the quote? Ask them!

- From a recent survey:
- We attempt to continuously validate and keep records of the various contributions that the Tucker Medical Library makes to the research, education and patient care effort at National Jewish Health. Maintaining services, a collection, a virtual presence and a library as a place are our contributions.
- **How has any of these contributions helped you in your work and ultimately helped the efforts of National Jewish? Tell us your opinion, or give us a specific incident or story about the use of the Tucker Medical Library services, collections, Web site, or physical space.**

## Part 2 Reporting the Outcomes

### • From published sources

- Weightman and Williamson report
- "Evidence of the impact of professional library services on health outcomes for patients and time savings for health-care staff is available and can be used to demonstrate the impact of library services to users, managers and funding bodies."

## Impact of health library services

- "The results suggest clear evidence of an impact of library services on patient outcomes from both traditional and clinical librarian services.
- The higher quality traditional library studies suggest effects of impacts of between
  - 37 and 97% on general patient care,
  - 10–31% on diagnosis,
  - 20–51% on choice of tests,
  - 27–45% on choice of therapy and
  - 10–19% on reduced length of stay"

## Outcomes - Joanne G. Marshall

Library Services have these outcomes:

- |   |  |
|---|--|
| • Corporate study: <ul style="list-style-type: none"><li>• Ability to proceed</li><li>• Make a decision</li><li>• Create new opportunity</li><li>• Save time</li><li>• Save money</li></ul> | • Government study: <ul style="list-style-type: none"><li>• Meet a deadline</li><li>• Deal with an emergency</li><li>• Improve a policy, procedure or plan</li><li>• Lessen conflict</li><li>• Save time and resources</li></ul> |
|---|--|

## Plan for Analyzing Studies of Outcomes

1. Develop a way to review the literature.
2. Read and understand the points made by the author(s).
3. Study the quality of the evidence using evidence-based librarianship methods.
4. Understand the attitude of your supervisor and administration about published research reports.
5. Prepare a report form to report new evidence-based articles to your supervisor. Use a report form to consistently report new evidence.

## Step 1: Develop a way to review the literature

- Subscribe to and read primary library journals.
- Auto-alert from a database search.
- RSS feed from library blogs or journal T/C.
- Library listserv monitoring
- Interlibrary loan - use it!
- Other?

## Step 2: Read and understand the points made by the author(s)

- List the outcomes reported
- Study the conclusions
- Fill out your form

### Step 3: Study the quality of the evidence

- Using evidence-based librarianship methods (Weightman)
  - Good sampling technique: 100% or truly random sample?
  - Not a pre-selected sample potentially causing bias?
  - Anonymous responses?
  - Researchers are independent of the library to ensure objectivity and anonymity?
  - Survey asked about a current specific use of library services or customers were asked to request information and assess its value? These methods avoid bias from recall errors.

### Step 3: Study the quality of the evidence

- <http://ebltoolkit.pbwiki.com/>
- Relevance: Does the study touch directly on the question? Do the results provide illumination on the question?
- Validity: Is the study design appropriate to the question? Is the study well-designed and as free from bias as possible?
- Reliability: Is the method of the study clear enough to allow it to be reproduced? How likely is it that similar results would be arrived at by another researcher using the same methods?

### Step 3: Study the quality of the evidence

- Lindsay Glynn's Critical Appraisal Checklist.
- <http://ebltoolkit.pbwiki.com/f/EBLCriticalAppraisalChecklist.pdf>
- See also Glynn, Lindsay. A Critical Appraisal Tool for Library and Information Research. Library Hi Tech 24.3 (2006): 387-399.

### Step 4: Understand the attitude of your supervisor and administration about published research reports.

- Discuss with them some of the principles of evidence-based research.
- Educate them on the value of EBL through these discussions.
- Find a receptive ear... Library Committee, Director of Medical Education, Dean...

### Step 5: Prepare a report form to report new evidence-based articles to your supervisor

#### Report of Evidence of Library Outcomes from the Recent Literature

Example on presenter's website

Journal Citation	
Methodology	
Results	
Copies of interesting Tables	
Conclusions	
Relevance to our situation	

- Handout, PowerPoint, Examples:
  - <http://info.nationaljewish.org/libraryinfo/>

#### • Second Question and Answer Period

# Using Evaluation Results to Communicate Your Value

## Part 3: Outcomes Measurement

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<http://info.nationaljewish.org/libraryinfo/>

## LOGIC MODEL

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